

(1) SEE SHEET C-4 FOR TYPICAL MOUNTING

1. SIGN PLACEMENT SHALL FOLLOW GUIDELINES SET FORTH IN MNUTCD MANUAL.
2. SEE STANDARD SIGN MANUAL FOR PUNCHING CODES AND DETAILED DRAWINGS OF TYPE C SIGN DETAILS.

NOTE:
THE EXACT LOCATION OF UNDERGROUND UTILITIES SUCH AS GAS, TELEPHONE, FIBEROPTIC, ELECTRIC, CABLE TV, AND PIPE LINES ARE UNKNOWN. THE CONTRACTOR SHALL CONTACT GOPHER STATE ONE CALL BEFORE COMMENCING EXCAVATION.

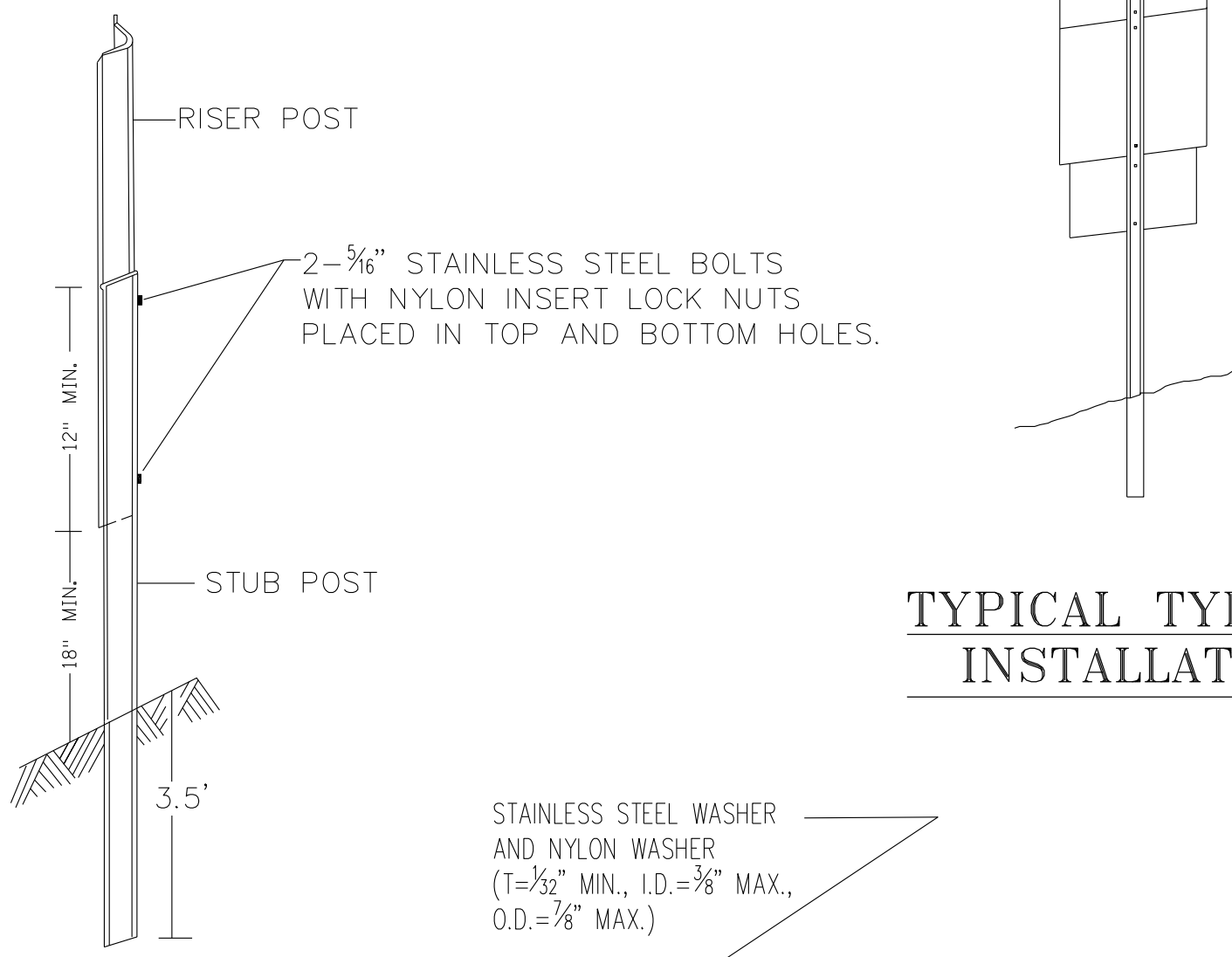
THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-02, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."



DRAWING

C-3

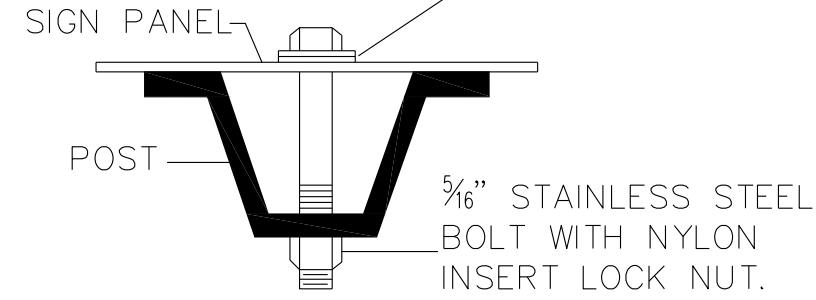
TYPE "C" POST



TYPICAL TYPE "C" INSTALLATIONS

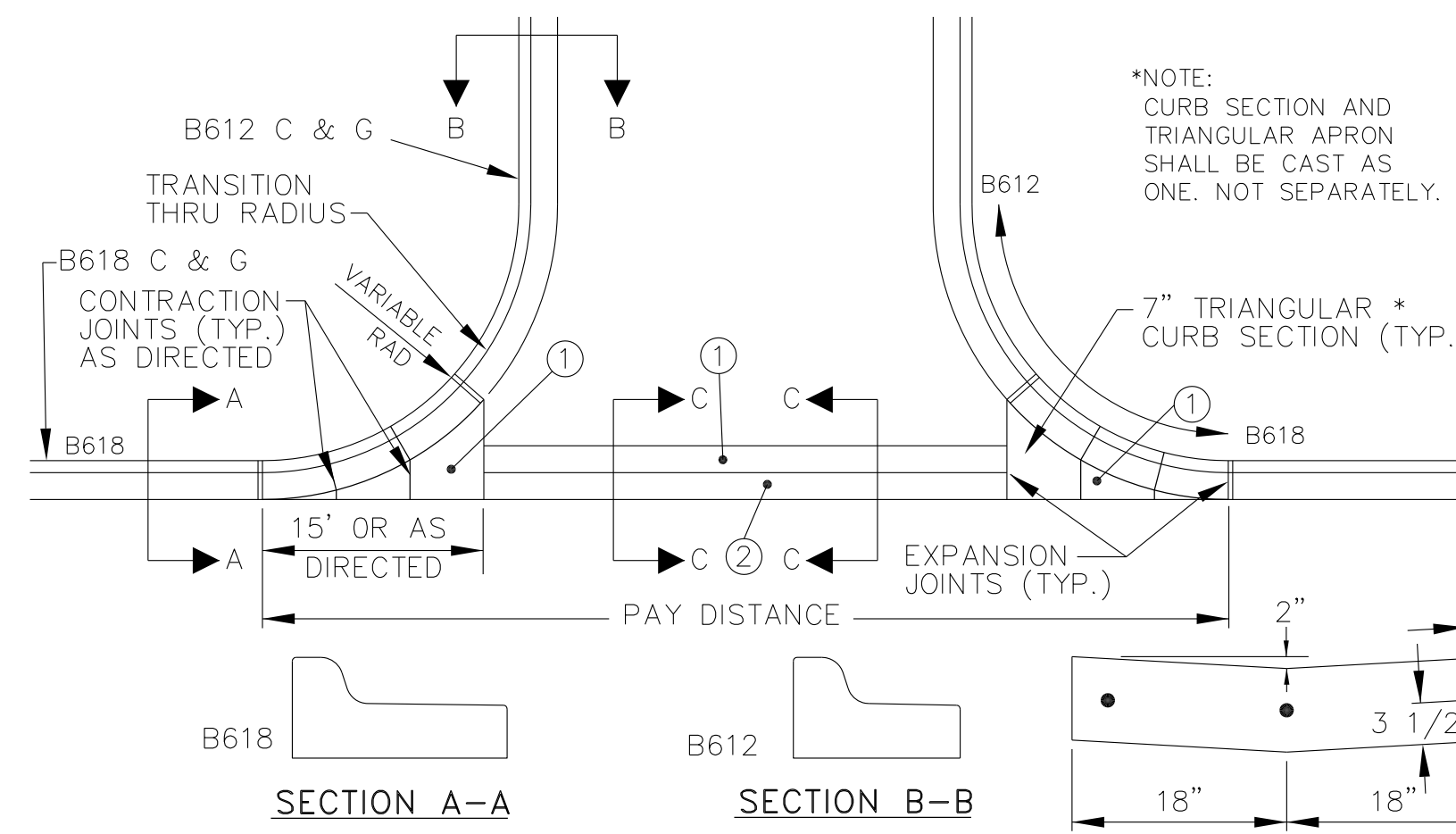
- NOTES:
- USE 3" STUB POSTS, RISER POSTS, STRINGERS, KNEE BRACES, LATERAL BRACES AND KNEE BRACE STUB POSTS. ALL SHALL CONFORM TO MN/DOT 340L.
 - MOUNTING (PUNCHING CODE) FOR TYPE "C" SIGN PANELS SHALL BE AS INDICATED IN THE STANDARD SIGNS MANUAL UNLESS OTHERWISE SPECIFIED.
 - ALL RISER (VERTICAL) "U POSTS" SHALL BE SPLICED, DRIVEN STUB POSTS SHALL BE AT LEAST 7' LONG.
 - USE STAINLESS STEEL 3/8" BOLTS, WASHERS, AND NYLON INSERT LOCK NUTS AS SHOWN FOR ALL GROUND MOUNTED AND OVERHEAD MOUNTED SIGNS.
 - STAINLESS STEEL WASHER WITH SAME DIMENSIONS SHALL BE PROVIDED BETWEEN ALL NYLON WASHERS AND BOLT HEADS.
 - BRACING STUBS SHALL BE NO MORE THAN 4" ABOVE GROUND AND EMBEDDED AT LEAST 3/2".
 - COLLARS SHALL BE USED TO SHIM OVERLAYS AND DEMOUNTABLE LEGEND AWAY FROM PANEL WHERE INTERFERENCE WITH BOLT HEADS IS ENCOUNTERED. MN/DOT 3352.2A5.
 - 2 AND 3 POST TYPE "C" SIGNS SHALL BE REINFORCED WITH AT LEAST ONE LATERAL BRACE. INSTALLATIONS WHERE THE TOTAL PANEL HEIGHT IS 60" OR MORE SHALL HAVE TWO LATERAL BRACES LOCATED APPROXIMATELY AT THE QUARTER POINTS.
 - WHERE 2 OR MORE SINGLE POST SIGNS (TYPE "C") ARE MOUNTED SIDE BY SIDE, THEY SHALL BE REINFORCED LATERALLY BY AT LEAST 2 POST SECTIONS, BOLTED AT EACH POST AND LOCATED APPROXIMATELY AT THE QUARTER POINTS AS SHOWN IN SKETCH.

"U POST" SPLICE



"U POST" MOUNTING TYPE "C" SIGNS

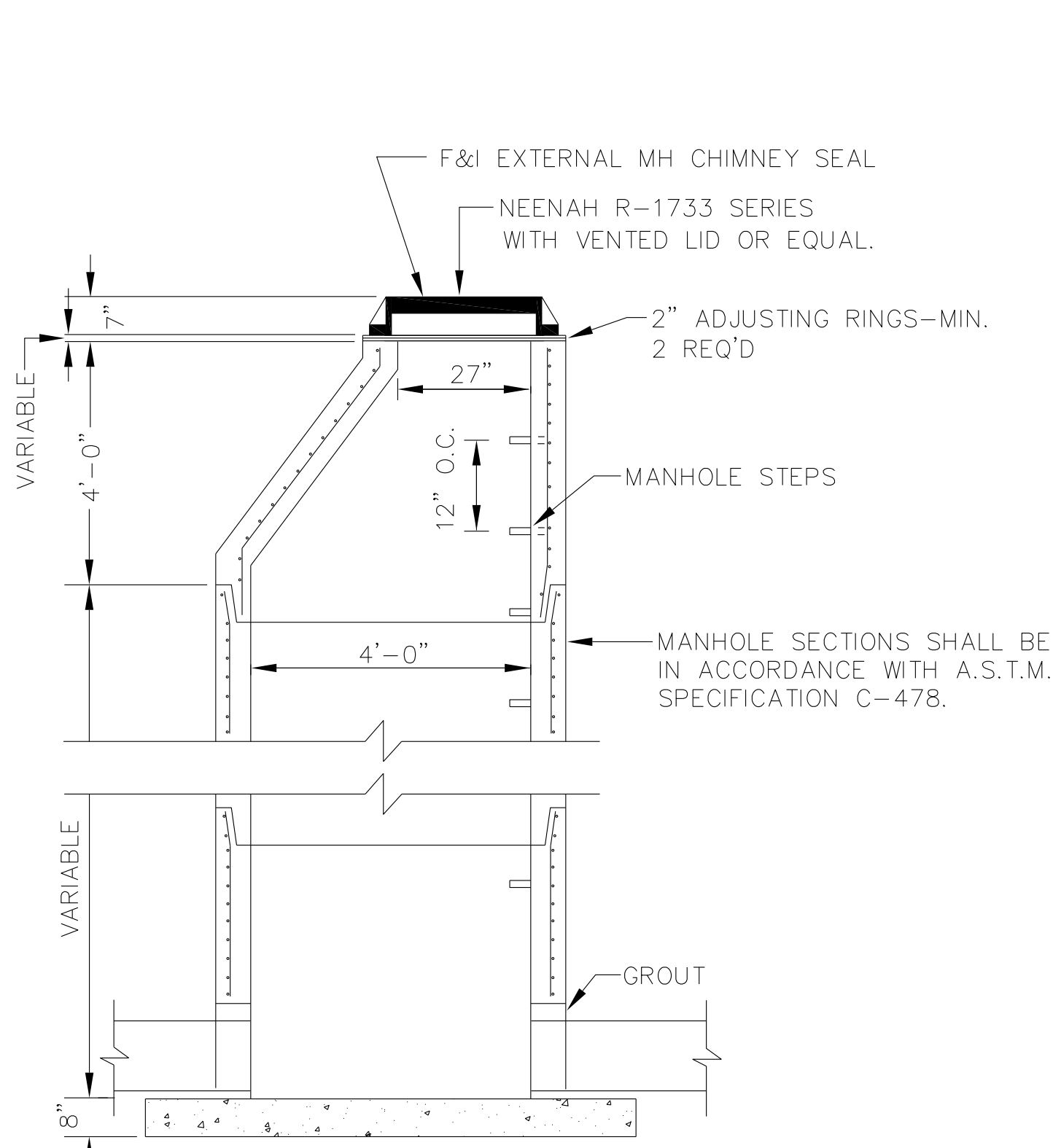
TYPICAL MOUNTING



- ① PAID FOR AS CONCRETE VALLEY GUTTER
② PLACE ON MIN. 12" CLASS 5 AGGREGATE BASE

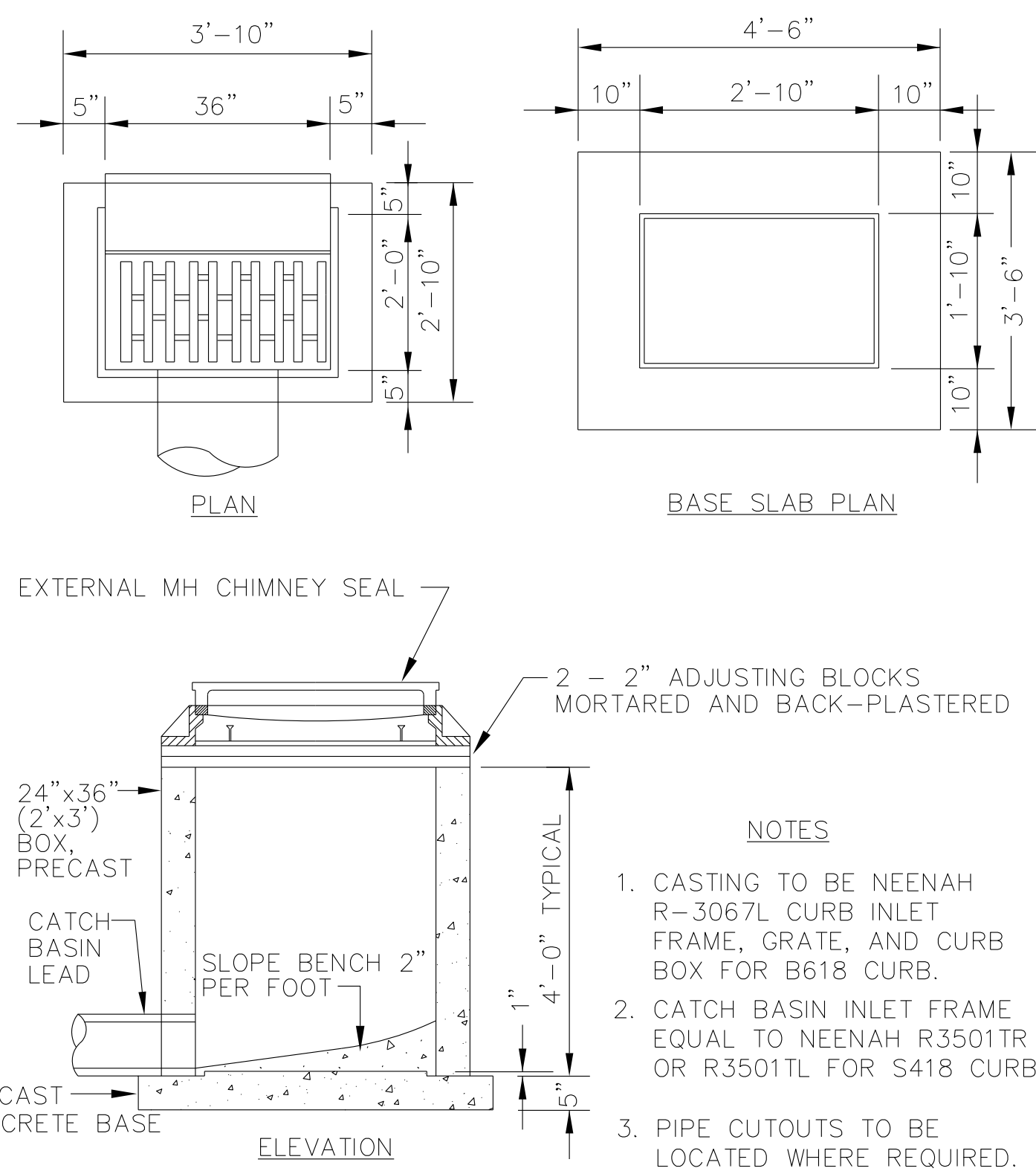
COMMERCIAL DRIVEWAY DETAIL

NO SCALE



STANDARD PRECAST STORM MANHOLE

NO SCALE

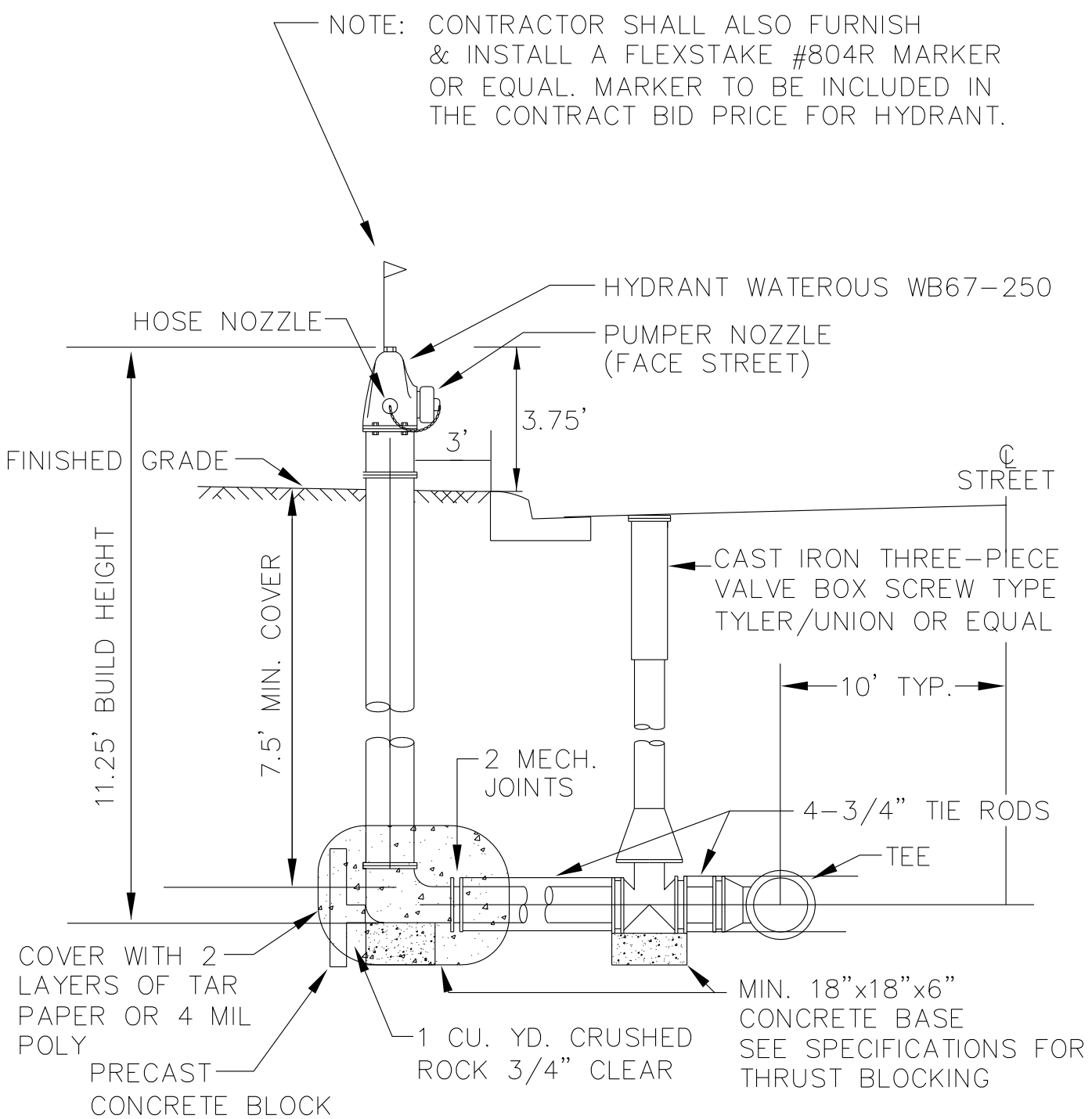


24"x 36" CATCH BASIN (TYPE 2)

NO SCALE

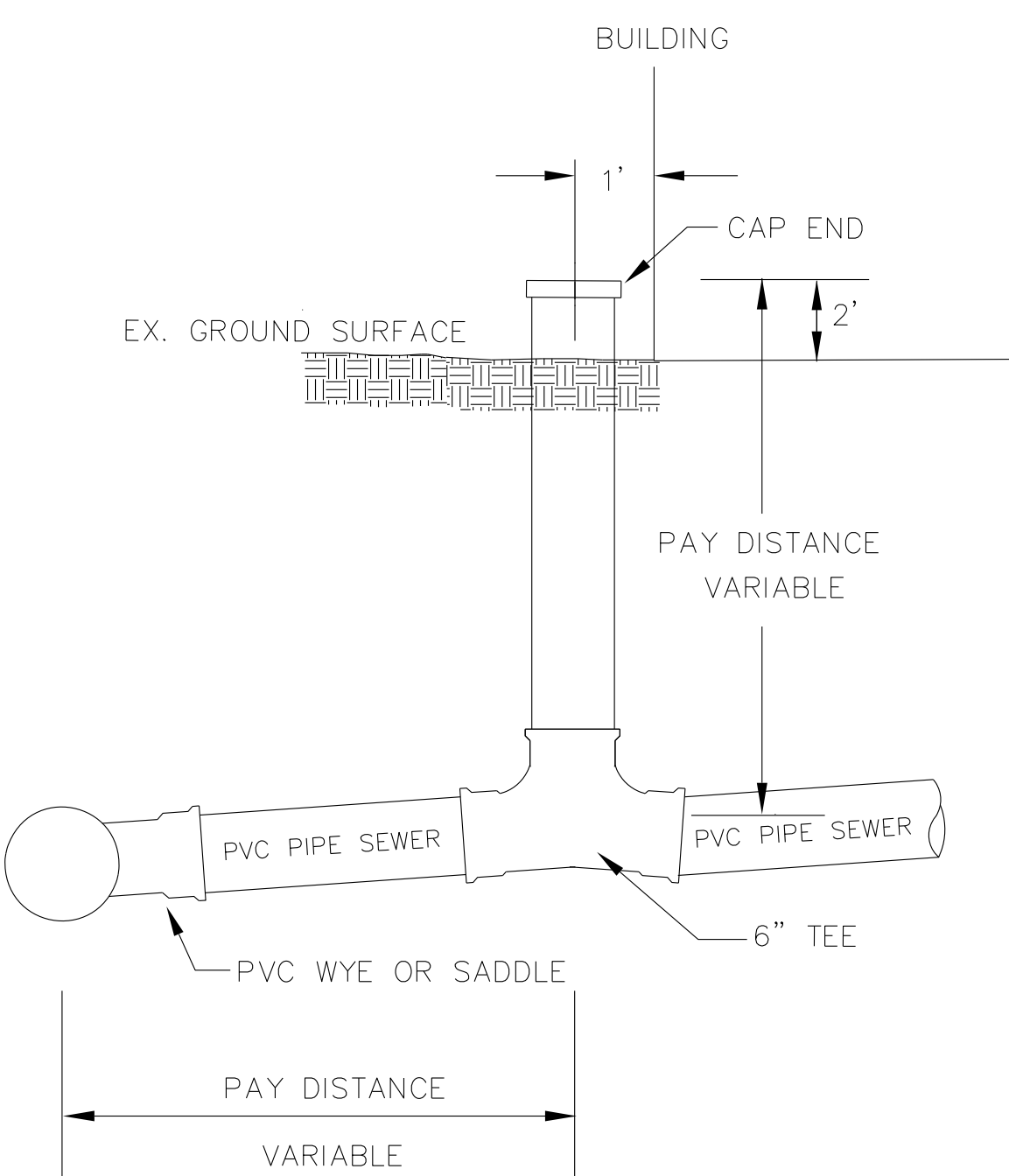
- NOTES
- CASTING TO BE NEENAH R-3067L CURB INLET FRAME, GRATE, AND CURB BOX FOR B618 CURB.
 - CATCH BASIN INLET FRAME EQUAL TO NEENAH R3501TR OR R3501TL FOR S418 CURB.
 - PIPE CUTOFFS TO BE LOCATED WHERE REQUIRED.

HYDRANT DETAIL WITH GATE VALVE IN THE STREET



SEWER SERVICE DETAIL

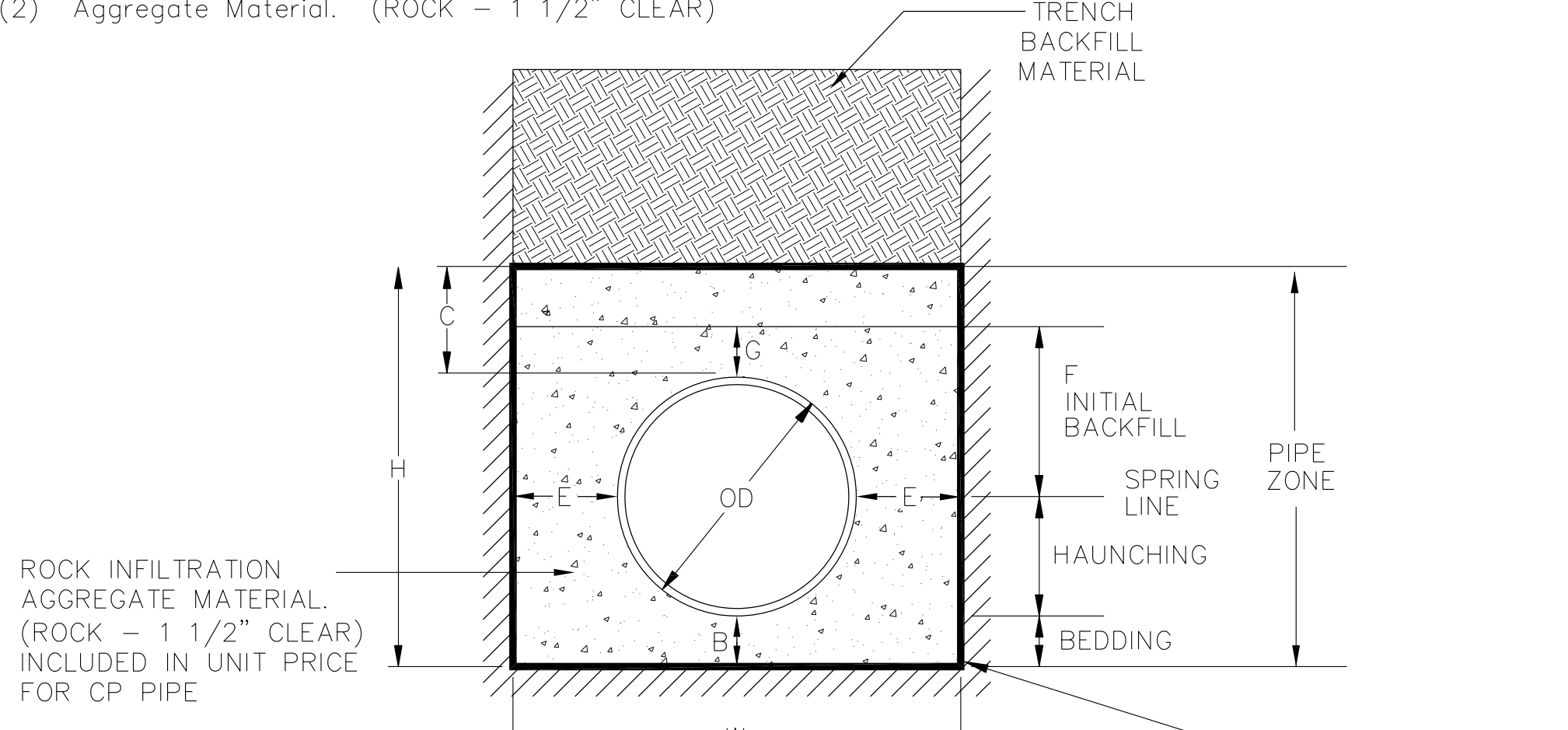
NO SCALE



CPE PIPE ENVELOPE & TRENCH DIMENSIONS (1)

Pipe Size	Pipe OD (Nominal) in.	Bed Depth Aggregate Material (2) in.	C Min. Cover (2) in.	H Min. Trench Depth (OD+B+C) ft.	E Envelope Width in.	W Min. Trench Width (OD+2E) in.	F Initial Backfill (2) in.	G Initial Backfill Over Pipe in.
4"	4.8	4 - 6	12	17 - 21	8	21	8	6

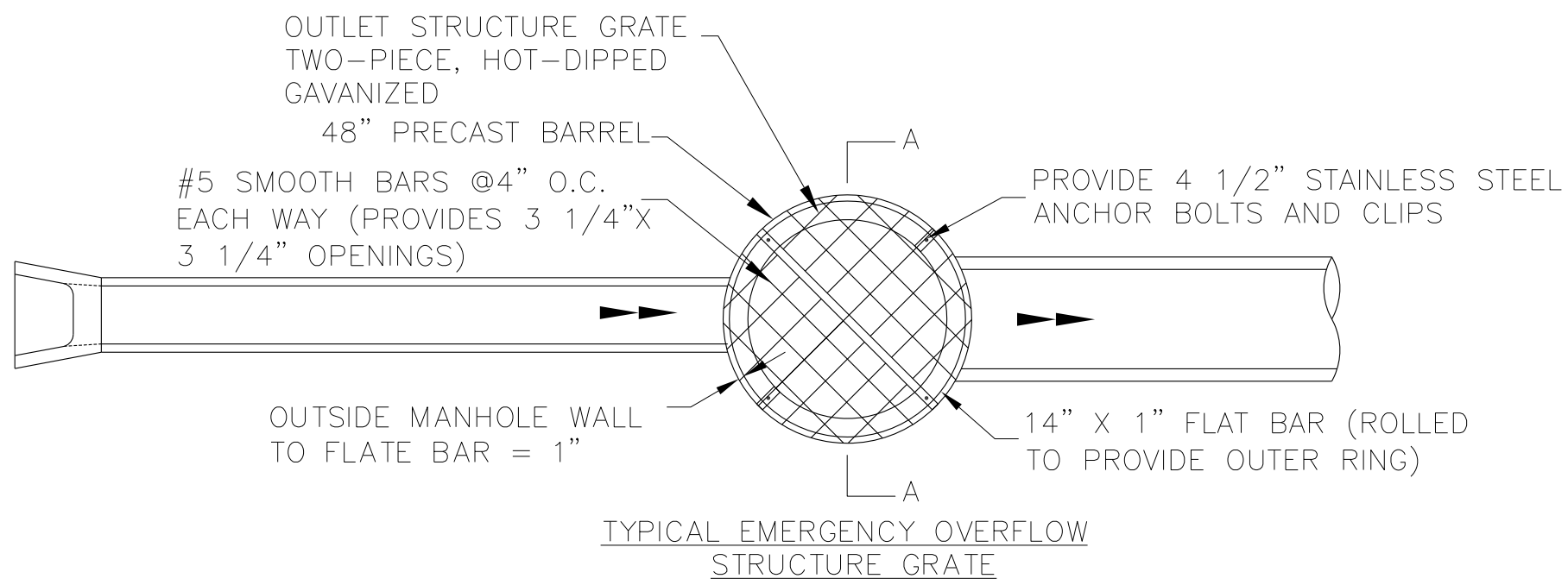
- (1) Refer To Specific Manufacturer's Installation Instructions.
(2) Aggregate Material. (ROCK - 1 1/2" CLEAR)



CORRUGATED POLYETHYLENE PIPE (CP)

NO SCALE

TYPICAL SECTION DETAIL

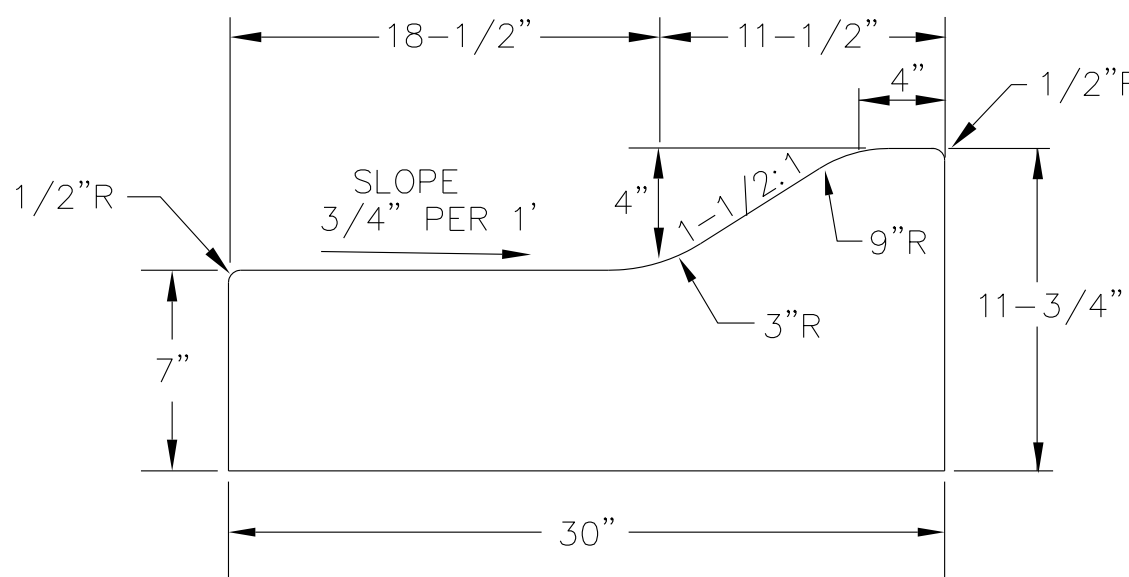


POND OUTLET STRUCTURE

NOT TO SCALE

PLATE NO.	DESCRIPTION
3000 L	REINFORCED CONCRETE PIPE
3006 G	GASKET JOINT FOR R.C. PIPE
3133 C	RIPRAP AT RCP OUTLETS
4180 J	MANHOLE OR CATCH BASIN STEP
7036 F	PEDESTRIAN CURB RAMP (FOR THE HANDICAPPED)
7100 H	CONCRETE CURB AND GUTTER, DESIGN B

THE ABOVE STANDARD PLATES, APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION, SHALL APPLY ON THIS PROJECT.



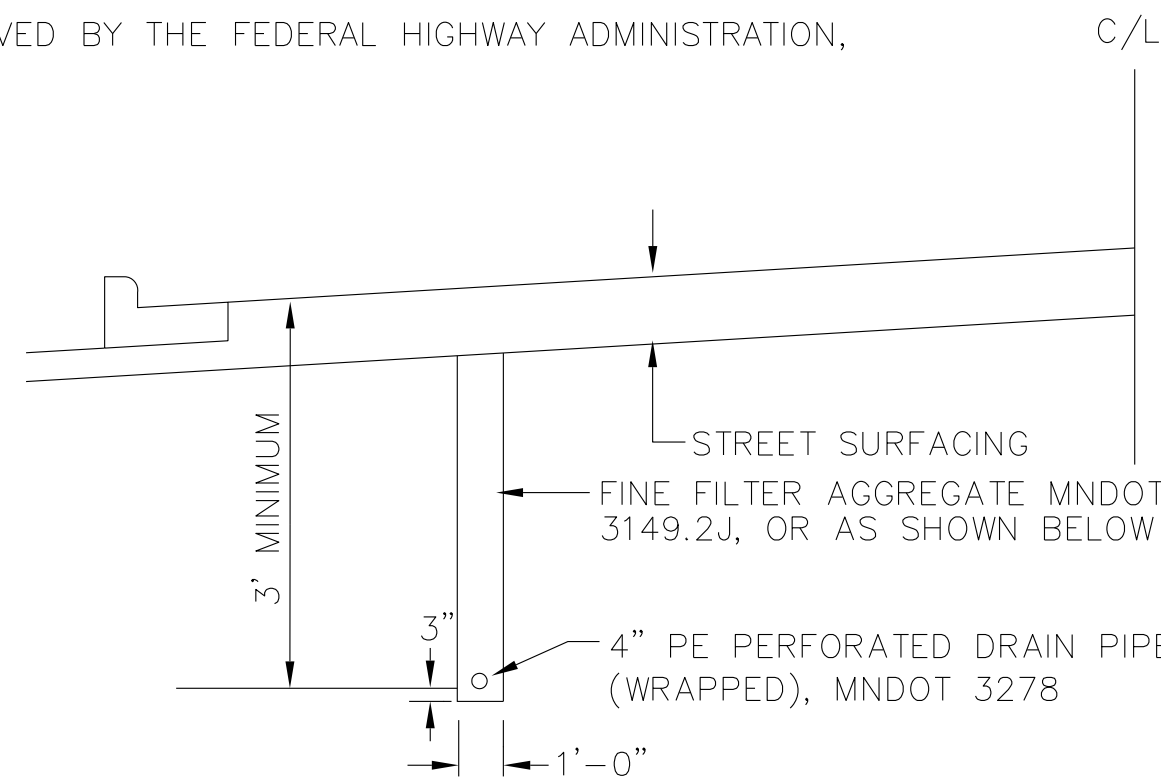
S418 CURB & GUTTER

NO SCALE

PERFORATED PIPE EDGE DRAIN

SIEVE SIZE	PERCENT PASSING
2"	100
3/8"	85-100
NO. 4	85-100
NO. 10	45-90
NO. 40	15-40
NO. 100	10-30
NO. 200	0-3

- NOTE: PLACE MINIMUM 6" OF COMPACTED AGGREGATE BEDDING UNDER CURB & GUTTER.



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I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR CALCULATION WAS PREPARED BY ME OR UNDER MY SUPERVISION AND THAT I AM A duly LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
Justin L. Black
DATE 5-17-10 REG. NO. 43373

207 WEST 11TH STREET
TRAILBLAZER
TRANSIT CENTER
GLENCOE, MINNESOTA

SEE FILE NO. TR19 110919
MAY 17, 2010
DESIGNED BY SJP
DRAWN BY SJP
PROJECT MGR SUB

SHEET CONTENTS
DETAILS

C-4